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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,778	07/01/2002	Selim Aractingi	217365US0PCT	1465

22850 7590 12/20/2005

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EXAMINER	
DIBRINO, MARIANNE NMN	

ART UNIT	PAPER NUMBER
1644	

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/926,778	ARACTINGI ET AL.	
	Examiner	Art Unit	
	DiBrino Marianne	1644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *9/30/02 & 7/1/02*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) *4-7,9 and 10* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/18/01*.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. *attached hereto* .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's amendments filed 9/30/02 and 7/1/02 and Applicant's response filed 10/26/05 are acknowledged and have been entered.

2. As noted in the interview summary attached hereto, Applicant indicated that they would amend the claims 1-3 (Group I) to recite a method of use and elect that method.

Applicant has also added new claims 8-10. The Examiner has grouped newly added claim 8 with claims 1-3, and newly added claims 9 and 10 with claims 4-7.

Applicant's election with traverse of Group I (claims 1-3 and 8), and species of HLA-G5 in Applicant's said response filed 10/26/05 is acknowledged.

The basis for Applicant's traversal is of record on pages 5-6 of the said response; briefly that the International authority did not take the position that unity of invention was lacking in the International application and Applicant cites PCT Article 27(I), and that the Office has not shown that a burden exists searching the entire application.

Applicant's arguments have been fully considered, but are not persuasive.

It is the Examiner's position that MPEP 1893.03(d) is clear upon the first point, *i.e.,* "If the Examiner finds that a national stage application lacks unity of invention under 1.475, the examiner may in an Office action require the applicant in the response to that action to elect the invention to which the claims shall be restricted." See MPEP 1893.03(d). Item #3 in the Office Action mailed 9/26/05 established a lack of unity of invention of the instant application. In addition, the citation of PCT Article 27(I) relates to "form or contents", not to 371 practice. As to the second point, it is the Examiner's position that unity of invention, not restriction practice is applicable in national stage applications submitted under 35 U.S.C. 371, and when making a lack of unity of invention, the Examiner must list the different groups of claims and explain why lack of unity exists. (See MPEP 1893.03(d)), as was done in the Office Action mailed 9/26/05. Thus, establishing serious burden is not required in the application of 371 practice.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-3 and 8 read on the elected species, HLA-G5.

Upon consideration of the prior art, the search has been extended to include the species of soluble isoforms of HLA-G comprising the α1 domain that are recited in instant claim 2.

Accordingly, claims 4-7, 9 and 10 (non-elected group II) are withdrawn from further consideration by the Examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claims 1-3 and 8 are currently being examined.

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(f) BACKGROUND OF THE INVENTION.
(1) Field of the Invention.
(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

5. The disclosure is objected to because of the following informality:

The use of the trademark HYBOND has been noted in this application on page 13 at line 25. It should be capitalized wherever it appears and be accompanied by the generic terminology. Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner that might adversely affect their validity as trademarks.

Appropriate correction is required.

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-3 and 8 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification does not disclose how to make and/or use the instant invention, a method for treating at least one inflammatory pathological skin condition in a subject comprising administering at least one soluble form of HLA-G, including those recited in the instant claims and at the recited concentrations, and at least one pharmaceutically acceptable vehicle. The specification has not enabled the breadth of the claimed invention because the claims encompass treating any inflammatory pathological skin

condition with a soluble form of HLA-G. The state of the art is such that it is unpredictable in the absence of appropriate evidence whether the compositions of the claimed method can be used to treat the said condition. The specification discloses no working examples with regards to the use of the instant invention for treatment of such a condition *in vivo*.

The specification discloses that psoriasis is a common chronic inflammatory pathology characterized by hyperproliferation of the keratinocytes of the epidermis (sentence spanning pages 4-5), that the dominant membrane-bound isoform HLA-G1 and the soluble isoform HLA-G5 are expressed only in inflammatory skin lesions [of psoriasis], whereas no HLA-G protein is detected in healthy skin (page 6 at lines 26-29), that macrophages in these lesions express HLA-G and infiltrating CD3+ T cells from these lesions express a receptor for inhibiting cytotoxic functions which is recognized by HLA-G, such as the ILT2 receptor (pages 6 at lines 18-24). The specification discloses that HLA-G isoforms comprising at least the α1 domain may inhibit the proliferative and cytotoxic functions of T lymphocytes (page 6 at lines 31-35). The specification further discloses that "soluble form of HLA-G" is intended to mean both the soluble HLA-Gs (not comprising a transmembrane domain) and the membrane-bound HLA-Gs which have been solubilized (page 7 at lines 29-34).

Evidentiary reference Aractingi *et al* (The American J. of Pathology, July, 2001, Vol. 159, No. 1, pages 71-77), said reference having a publication date after Applicant's effective filing date, teach that "Future analysis, such as functional studies in animal models, will be needed to ultimately assess the role of HLA-G in psoriasis" (last sentence of the article).

There is insufficient guidance in the specification as to how to make and/or use instant invention. Undue experimentation would be required of one skilled in the art to practice the instant invention. See In re Wands 8 USPQ2d 1400 (CAFC 1988).

8. For the purpose of prior art rejections, the filing date of the instant claims 1-3 and 8 is deemed to be the filing date of the PCT/FR00/01670, *i.e.,* 6/16/00, as a translation of the foreign priority document has not been supplied by Applicant.

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,753,625 as evidenced by admissions in the specification at the paragraph spanning pages 4 and 5.

U.S. Patent No. 5,753,625 discloses administering a pharmaceutical composition comprising a peptide having the sequence of MHC class I antigen α1 domain such as that of HLA-G to treat autoimmune diseases such as psoriasis (especially abstract, column 1 at the second full paragraph, column 2 at lines 40-46 and lines 57-67, column 3 at lines 1-3, column 4 at lines 22-24, column 5 at lines 50-63).

The admissions in the specification at the paragraph spanning pages 4 and 5 are that psoriasis is a chronic inflammatory pathology that is characterized by hyperproliferation of the keratinocytes of the epidermis or skin.

11. Claims 1 and 2 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent No. 5,753,625 as evidenced by admissions in the specification at the paragraph spanning pages 4 and 5.

U.S. Patent No. 5,753,625 discloses administering a pharmaceutical composition comprising a peptide having the sequence of MHC class I antigen α1 domain such as that of HLA-G to treat autoimmune diseases such as psoriasis (especially abstract, column 1 at the second full paragraph, column 2 at lines 40-46 and lines 57-67, column 3 at lines 1-3, column 4 at lines 22-24, column 5 at lines 50-63).

The admissions in the specification at the paragraph spanning pages 4 and 5 are that psoriasis is a chronic inflammatory pathology that is characterized by hyperproliferation of the keratinocytes of the epidermis or skin.

12. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,753,625 as evidenced by admissions in the specification at the paragraph spanning pages 4 and 5.

U.S. Patent No. 5,753,625 discloses administering a pharmaceutical composition comprising a peptide having the sequence of MHC class I antigen α1 domain such as that of HLA-G to treat autoimmune diseases such as psoriasis (especially abstract, column 1 at the second full paragraph, column 2 at lines 40-46 and lines 57-67, column 3 at lines 1-3, column 4 at lines 22-24, column 5 at lines 50-63).

The admissions in the specification at the paragraph spanning pages 4 and 5 are that psoriasis is a chronic inflammatory pathology that is characterized by hyperproliferation of the keratinocytes of the epidermis or skin.

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 1-3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,753,625 in view of U.S. Patent No. 5,417,986 and admissions in the specification at the paragraph spanning pages 4 and 5.

U.S. Patent No. 5,753,625 discloses administering a pharmaceutical composition comprising a peptide having the sequence of MHC class I antigen α1 domain such as that of HLA-G to treat autoimmune diseases such as psoriasis (especially abstract, column 1 at the second full paragraph, column 2 at lines 40-46 and lines 57-67, column 3 at lines 1-3, column 4 at lines 22-24, column 5 at lines 50-63).

U.S. Patent No. 5,753,625 does not disclose that the concentration of the at least one soluble form of HLA-G is between 0.1 and 5 ug/ml (recited in instant claim 3), nor between 0.5 and 2.5 ug/ml (recited in instant claim 8).

U.S. Patent No. 5,417,986 discloses i.v injection of peptides into primates at a concentration of 0.6 ug/ml, or s.c. injection of polypeptide into mice at 5 ug/ml (especially column 15 at lines 54-56 and column 40 at lines 34-40, respectively).

The admissions in the specification at the paragraph spanning pages 4 and 5 are that psoriasis is a chronic inflammatory pathology that is characterized by hyperproliferation of the keratinocytes of the epidermis or skin.

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have treated psoriasis, disclosed to be a chronic inflammatory skin condition by admissions in the specification, with a pharmaceutical composition comprising the α1 domain of HLA-G as disclosed by U.S. Patent No. 5,753,625 using the concentrations disclosed by U.S. Patent No. 5,417,986.

One of ordinary skill in the art at the time the invention was made would have been motivated to do this because U.S. Patent No. 5,753,625 does not disclose that the concentration of the HLA-G α1 domain polypeptide and U.S. Patent No. 5,417,986 discloses concentrations of polypeptides suitable for *in vivo* administration for treating primates, *i.e.,* including humans, or mice.

15. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,753,625 in view of WO 98/37098 A1 (Applicant's IDS reference) and admissions in the specification at the paragraph spanning pages 4 and 5.

U.S. Patent No. 5,753,625 discloses administering a pharmaceutical composition comprising a peptide having the sequence of MHC class I antigen α1 domain such as that of HLA-G to treat autoimmune diseases such as psoriasis (especially abstract, column 1 at the second full paragraph, column 2 at lines 40-46 and lines 57-67, column 3 at lines 1-3, column 4 at lines 22-24, column 5 at lines 50-63).

U.S. Patent No. 5,753,625 does not disclose administering a solubilized form of HLA-G1, HLA-G2, HLA-G3, HLA-G3, HLA-G4, nor HLA-G5 for treating an inflammatory pathological skin condition.

WO 98/37098 A1 teaches isoforms of HLA-G that include the α1 domain are HLA-G1, HLA-G2, HLA-G3, HLA-G4 and HLA-G5. WO 98/37098 A1 further teaches soluble isoforms of HLA-G5 and incubating NK cells or ligands with HLA-G, or making a immunomodulating composition comprising an isoform of HLA-G for inhibiting the activity of NK cells to treat autoimmune diseases (especially abstract, pages 1-7).

The admissions in the specification at the paragraph spanning pages 4 and 5 are that psoriasis is a chronic inflammatory pathology that is characterized by hyperproliferation of the keratinocytes of the epidermis or skin.

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have administered any solublilized form of HLA-G comprising the α1 domain such as HLA-G1, HLA-G2, HLA-G3, HLA-G4 and HLA-G5 taught by WO 98/37098 A1 in a pharmaceutical composition such as that disclosed by U.S. Patent No. 5,753,625 to treat psoriasis, disclosed to be a chronic inflammatory skin condition by admissions in the specification.

One of ordinary skill in the art at the time the invention was made would have been motivated to do this in order to treat psoriasis because U.S. Patent No. 5,753,625 discloses administering a pharmaceutical composition comprising a peptide having the sequence of MHC class I antigen α1 domain such as that of HLA-G to treat autoimmune diseases such as psoriasis, and WO 98/37098 A1 teaches isoforms of HLA-G that include the α1 domain, including the soluble isoform of HLA-G5, and teaches administering them to treat autoimmune diseases.

Although Applicant's IDS reference WO 98/37098 A1 is not in English, the Examiner has searched portions of the said reference using a French- English on-line translator. Applicant is invited to provide a translation of the said reference.

16. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,753,625 in view of WO 98/37098 A1 (Applicant's IDS reference) and admissions in the specification at the paragraph spanning pages 4 and 5 as applied to claims 1 and 2 above, and further in view of U.S. Patent No. 5,417,986.

The combination of U.S. Patent No. 5,753,625, WO 98/37098 A1 (Applicant's IDS reference) and admissions in the specification at the paragraph spanning pages 4 and 5 have been discussed supra, hereafter referred to as "the combined references."

The combined references do not disclose that the concentration of the at least one soluble form of HLA-G is between 0.1 and 5 ug/ml (recited in instant claim 3), nor between 0.5 and 2.5 ug/ml (recited in instant claim 8).

U.S. Patent No. 5,417,986 discloses i.v injection of peptides into primates at a concentration of 0.6 ug/ml, or s.c. injection of polypeptide into mice at 5 ug/ml (especially column 15 at lines 54-56 and column 40 at lines 34-40, respectively).

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have treated psoriasis, disclosed to be a chronic inflammatory skin condition by admissions in the specification, with a pharmaceutical composition comprising a soluble isoform of HLA-G consisting of or comprising the α1 domain of HLA-G as disclosed by the combined references using the concentrations disclosed by U.S. Patent No. 5,417,986.

One of ordinary skill in the art at the time the invention was made would have been motivated to do this because the combined references do not disclose that the concentration of the HLA-G α1 domain polypeptide and U.S. Patent No. 5,417,986 discloses concentrations of polypeptides suitable for *in vivo* administration for treating primates or mice.

17. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,753,625 in view of WO 98/37098 A1 (Applicant's IDS reference), US 2003/0162175 A1 and admissions in the specification at the paragraph spanning pages 4 and 5.

U.S. Patent No. 5,753,625 discloses administering a pharmaceutical composition comprising a peptide having the sequence of MHC class I antigen α1 domain such as that of HLA-G to treat autoimmune diseases such as psoriasis (especially abstract, column 1 at the second full paragraph, column 2 at lines 40-46 and lines 57-67, column 3 at lines 1-3, column 4 at lines 22-24, column 5 at lines 50-63).

U.S. Patent No. 5,753,625 does not disclose administering a solubilized form of HLA-G1, HLA-G2, HLA-G3, HLA-G3, HLA-G4, nor HLA-G5 for treating an inflammatory pathological skin condition.

WO 98/37098 A1 teaches isoforms of HLA-G that include the α1 domain are HLA-G1, HLA-G2, HLA-G3, HLA-G4 and HLA-G5. WO 98/37098 A1 further teaches soluble isoforms of HLA-G5 and incubating NK cells or ligands with HLA-G, or making a immunomodulating composition comprising an isoform of HLA-G for inhibiting the activity of NK cells to treat autoimmune diseases (especially abstract, pages 1-7).

US 2003/0162175 A1 discloses that NK cell have two functional types of MHC class I specific receptors, activation receptors and inhibitory receptors, the latter KIR include ILT1, -2, -3, -4 and –5. US 2003/0162175 A1 further discloses that NK cells are inhibited by HLA-G, and that NK cells appear to regulate autoimmunity. US 2003/0162175 A1 discloses using pharmaceutical compositions comprising NKCR (NK Cell Receptor) polypeptides to ameliorate autoimmunity or inflammation. US 2003/0162175 A1 discloses that psoriasis is a disorder that may be treated with the polypeptides (especially [0003], [0004], [0013], [0017], [0019], [0620] and [0642]).

The admissions in the specification at the paragraph spanning pages 4 and 5 are that psoriasis is a chronic inflammatory pathology that is characterized by hyperproliferation of the keratinocytes of the epidermis or skin.

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have administered any solublilized form of HLA-G comprising the α1 domain such as HLA-G1, HLA-G2, HLA-G3, HLA-G4 and HLA-G5 taught by WO 98/37098 A1 in a pharmaceutical composition such as that disclosed by U.S. Patent No. 5,753,625 to treat psoriasis, particularly in light of the disclosure of US 2003/0162175 A1 that NK cells are inhibited by HLA-G and psoriasis is a disease to be treated with NKCR inhibitory polypeptides, and the admissions in the specification are that psoriasis is an inflammatory pathological condition of the skin.

One of ordinary skill in the art at the time the invention was made would have been motivated to do this in order to treat psoriasis because U.S. Patent No. 5,753,625 discloses administering a pharmaceutical composition comprising a peptide having the sequence of MHC class I antigen α1 domain such as that of HLA-G to treat autoimmune diseases such as psoriasis, WO 98/37098 A1 teaches isoforms of HLA-G that include the α1 domain, including the soluble isoform of HLA-G5, and teaches administering them to treat autoimmune diseases, and US 2003/0162175 A1 discloses that psoriasis is a disease to be treated with NKCR inhibitory polypeptides and that HLA-G inhibits NK cells.

Although Applicant's IDS reference WO 98/37098 A1 is not in English, the Examiner has searched portions of the said reference using a French- English on-line translator. Applicant is invited to provide a translation of the said reference.

18. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,753,625 in view of WO 98/37098 A1 (Applicant's IDS reference), US 2003/0162175 A1 and admissions in the specification at the paragraph spanning pages 4 and 5 as applied to claims 1 and 2 above, and further in view of U.S. Patent No. 5,417,986.

The combination of U.S. Patent No. 5,753,625, WO 98/37098 A1 (Applicant's IDS reference), US 2003/0162175 A1 and admissions in the specification at the paragraph spanning pages 4 and 5 have been discussed supra, hereafter referred to as "the combined references."

The combined references do not disclose that the concentration of the at least one soluble form of HLA-G is between 0.1 and 5 ug/ml (recited in instant claim 3), nor between 0.5 and 2.5 ug/ml (recited in instant claim 8).

U.S. Patent No. 5,417,986 discloses i.v injection of peptides into primates at a concentration of 0.6 ug/ml, or s.c. injection of polypeptide into mice at 5 ug/ml (especially column 15 at lines 54-56 and column 40 at lines 34-40, respectively).

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have treated psoriasis, disclosed to be a chronic inflammatory skin condition by admissions in the specification, with a pharmaceutical composition comprising a soluble isoform of HLA-G consisting of or comprising the α1 domain of HLA-G as disclosed by the combined references using the concentrations disclosed by U.S. Patent No. 5,417,986.

One of ordinary skill in the art at the time the invention was made would have been motivated to do this because the combined references do not disclose that the concentration of the HLA-G α1 domain polypeptide and U.S. Patent No. 5,417,986 discloses concentrations of polypeptides suitable for *in vivo* administration for treating primates or mice.

19. Applicant's IDS filed 6/1/04 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because it is not a proper IDS, *i.e.,* 37 CFR 1.97, 1.98 require the following format for an IDS listing to include: a specified format/identification for each page of an IDS, a column that provides a space next to each document listed to permit the examiner's initials, a heading that identifies the list as an IDS, and each page of the list must clearly identify the application number of the application in which the IDS is being submitted. In addition, the second reference on the said IDS is the instant application, 09/926,776.

It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

20. No claim is allowed.

21. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Marianne DiBrino whose telephone number is 571-272-0842. The Examiner can normally be reached on Monday, Tuesday, Thursday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Christina Y. Chan, can be reached on 571-272-0841. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marianne DiBrino, Ph.D.
Patent Examiner
Group 1640
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December 5, 2005

CHRISTINA CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600